

REMARKS

Claims 1-53 are pending in the present application, and claims 1-53 have been rejected. Reconsideration of the claims is respectfully requested.

The specification was objected to. Amendments were made to the specification to provide application serial numbers of related patent applications cited on page one of the subject patent application. Withdrawal of the objection to the specification is respectfully requested.

Applicants' representative thanks the Examiner for the interview conducted on October 4, 2004. During the interview, the following points were discussed:

I. 35 U.S.C. § 102, Anticipation

The Office Action has rejected claims 1-53 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,758,153 to Atsatt et al. (hereinafter Atsatt). This rejection is respectfully traversed.

With respect to this rejection, a prior art reference anticipates the claimed invention under 35 U.S.C. § 102 only if every element of a claimed invention is identically shown in that single reference, arranged as they are in the claims. *In re Bond*, 910 F.2d 831, 832, 15 U.S.P.Q.2d 1566, 1567 (Fed. Cir. 1990). All limitations of the claimed invention must be considered when determining patentability. *In re Lowry*, 32 F.3d 1579, 1582, 32 U.S.P.Q.2d 1031, 1034 (Fed. Cir. 1994). Anticipation focuses on whether a claim reads on the product or process a prior art reference discloses, not on what the reference broadly teaches. *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 218, U.S.P.Q. 781 (Fed. Cir. 1983). In this particular case, each and every feature of the presently claimed invention is not identically shown or described in *Atsatt*, arranged as they are in the claims.

For example, claim 1 recites the following:

1. A method in a data processing system for tracking relationships between programs and data, the method comprising:
 - receiving a file access request from a program, wherein the file access request is for a file and is received at an operating system level;
 - identifying an association between the file and the program requesting the file access in response to receiving the file access request; and

storing the association between the file and the program, wherein the association is used for subsequent accesses to the file such that a stored association is stored for each file for which file access is requested by the program.

With regard to claims 1, 17, 22 and 38, the Office Action states the following:

...Atsatt teaches a system which including 'data processing system for tracking relationships between programs and data' [col 12, lines 3-12], Atsatt specifically teaches establishing relation between operating system(s) and file applications as detailed in col 12, line 3-12;

'receiving a file access request from a program, wherein the file access request is for a file and is received at an operating system level' [col 10, line 48-63, col 11, line 20-22, line 28-32, line 39-41, col 15, line 60-67, fig 9], Atsatt specifically teaches file access control, file access properties that including direct accessing, notification, authentication and like as detailed in col 10, line 48-63, further it is noted that Atsatt specifically stabling relation between file access or accessing file application and operating systems for manipulation of file data at application level and compatible as detailed in col 11, line 28-32;

'identifying an association between the file and the program requesting the file access in response to receiving the file access request' [col, line 17-27col 14, line 36-44, col 24, line 21-25, col 26, line 21-28, fig 8-9], Atsatt suggests identifying specific file and association with access control list and notification that related to file access program;

'storing the association between the file and the program, wherein the association is used for subsequent accesses to the file such that a stored association is stored for each file for which file access is requested by the program' [col 14, line 1-3, line 9-15, col 25, line 66-67, col 26, line 1-9],

Office Action dated 7/16/2004, Pages 3-4.

Applicants respectfully disagree. Atsatt describes an object oriented file system having a file system entity class for encapsulating file properties. A file may be encapsulated into a format compatible with the file system. The encapsulated file may then be transported over a network from a remote server running under a different operating system thereby providing interoperability between other file systems and the file system described by Atsatt.

With regard to the claimed limitation of "identifying an association between the file and the program requesting the file access in response to receiving the file access request," the following passages of Atsatt were cited as describing the claimed limitation:

TFSEntity encapsulates the standard properties and operations that are common across the derived classes. Some common properties of file system entities are its name, type, and creation date, and common operations include

accessor methods to the properties. The derived classes, TFile, TDirectory, and TVolume inherit TFSEntity properties and operations, and provide additional properties and operations specific to the derived class. The derived classes can be further subclassed to facilitate different properties and operations as necessary.

Atsatt, Column 11, Lines 17-27.

FIG. 8 is an overview of the class categories that comprise the file system framework with an application 63 as the client. The categories include File System 76, Properties 74, Iterators 70, File Access 66, Access Control 64, Notification 68, and Copy and Move 72. A specification for each class describing the application interface is described herein along with detailed examples of how to use the classes. Further, a class diagram is provided for the main class categories: File System, Properties, and Notification.

Atsatt, Column 14, Lines 36-44.

TFileStream and TFileRangeLock

File access is achieved using a TFileStream 94 class which is subclassed from a TStream 92 class and an abstract MOpenFile 96 class. Streams provide a stream-of-bytes interface for objects, making it easier to read and write objects.

Atsatt, Column 24, Lines 20-24.

Working with files from a "foreign" file system running under a different operating system is called interoperability. Interoperability is achieved in the present invention by "packaging" files into formats compatible with the various file systems. For example, before a file created on an MS-DOS system is transported to a volume of the present invention, the file is packaged into a compatible format and the MS-DOS properties stored with the packaged file.

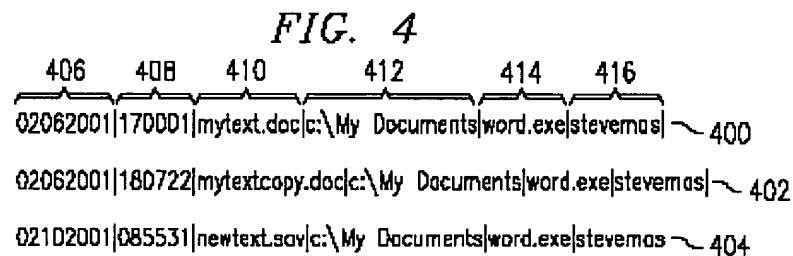
Atsatt, Column 26, Lines 21-28.

Nothing in the above passages of Atsatt describe the limitation of "identifying an association between the file and the program requesting the file access in response to receiving the file access request." The passages cited generally describe class properties and access methods. None, however, describe or suggest "identifying an association between" a file and a program assessing the file *in response to* receiving the file access request.

Additionally, each of the passages cited in the Office Action as describing the claim limitation of "storing the association between the file and the program" wherein the association is used for subsequent accesses to the file in no manner describe or suggest the limitation as asserted. Rather, the passages of Atsatt generally describe storage devices (Column 14, Lines 1-3 and 9-15), a credential mechanism for user (principle) access rights (Column 25, Lines 66-Column 26, Line 9). No description or suggestion is provided for "storing the association between the file and the program" wherein the

association is used for subsequent accesses to the file as described and claimed in the subject application.

As described in the present application, prior art mechanisms provide file associations between an application and data *when an application is installed* (Page 1, Line 26-Page 2, Line 6). The present invention, on the other hand, defines relationships between applications and data files *when an application requests access* to a file. A driver is used to intercept file access requests and an association between the application that issued the file access request and the data file is created and stored in a database that can subsequently be accessed. For example, Figure 4 of the subject application shows the following:



As can be seen, metadata describing relationships between applications and associated data includes records (400-404) that identify a file (section 410) and an application (section 414) that requested the file.

Independent claims 17, 22, and 38 recite similar features as claim 1. Therefore, the same distinctions between Atsatt and the claimed invention in claim 1 apply for these claims. For the reasons described above, Atsatt does not contain all elements of independent claims 1, 17, 22, and 38. Hence, Atsatt fails to anticipate the present invention as recited in claims 1, 17, 22, and 38. Since claims 2-16 depend from claim 1, claims 18-21 depend from claim 17, claims 23-37 depend from claim 22, and claims 39-53 depend from claim 38, the same distinctions between Atsatt and the claimed invention in independent claims 1, 17, 22, and 38 apply for these claims. Additionally, claims 2-16, 18-21, 23-37, and 39-53 and claim other additional combinations of features not suggested by Atsatt. For example, claim 3 depends from claim 1 and recites the following:

3. The method of claim 1, wherein the association includes a file name for the file and a program name for the program.

With regard to claim 3, the Office Action states the following:

In addition, with respect to the claimed feature Atsatt disclosed 'file name for the file and a program name for the program' [col 7, line 42-54, col 11, line 10-14], Atsatt specifically teaches various operating systems and their association with respective file(s) for example Macintosh operating system or MacApp is associated with their respective file system as detailed in the background of the invention at col 7, line 42-45, further Atsatt also disclosed various commands or functions related to not only identify specific file, but also manipulation of file data within the file structure as detailed in col 5-6.

Office Action dated 7/16/2004, pages 4-5.

Applicants respectfully disagree. The passages of Atsatt recited in the rejection of claim 3 are as follows:

For instance, in Apple Computer's application framework for the Macintosh operating system (MacApp) a TFile class 8 is provided as an interface to the procedure based file system (see "Programmer's Guide to MacApp", Developer Technical Publications, 1992). Another example is the CFile class provided in Visual C++, Microsoft's application framework for the Windows operating system (see "Visual C++, Reference Volume I", Microsoft, 1993). An abbreviated version of the MacApp TFile class 8 as shown in FIG. 3A encapsulates the properties, data, and operations of a Macintosh file into a standard object-oriented class that programmers are familiar with.

Atsatt, Column 7, Lines 42-54.

Many of the objects in the file system are surrogate objects that represent some real object. Every surrogate object encapsulates an identifier that names its associated real object, the identifier being used to update the real object when the surrogate object changes. If the real object is deleted, the surrogate becomes invalid and subsequent calls on the surrogate will raise an exception.

Atsatt, Column 11, Lines 10-14.

As can be seen, the passages of Atsatt cited in the rejection of claims 3, 24, and 40 generally describe procedures for operating systems to interface with file systems, e.g., the TFile class used by MacApp and the CFile class used by Windows operating system. These mechanisms are generally consistent with, and have the deficiencies of, conventional file access procedures and are consistent with prior art systems that store file and program associations *upon application installation*. Nothing in Atsatt describes or suggests *storing an association* that is identified "*in response to receiving*" an "access request" for a file wherein the association is a file name and a program name.

Consequently, it is respectfully urged that the rejection of claims 1-53 under 35 U.S.C. § 102(b) an being anticipated by Atsatt have been overcome, and such a notice is respectfully requested.

II. Conclusion

It is respectfully urged that the subject application is patentable over Atsatt and is now in condition for allowance.

The examiner is invited to call the undersigned at the below-listed telephone number if in the opinion of the examiner such a telephone conference would expedite or aid the prosecution and examination of this application.

DATE: October 15, 2004

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'S. McDonald', is written over a horizontal line.

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